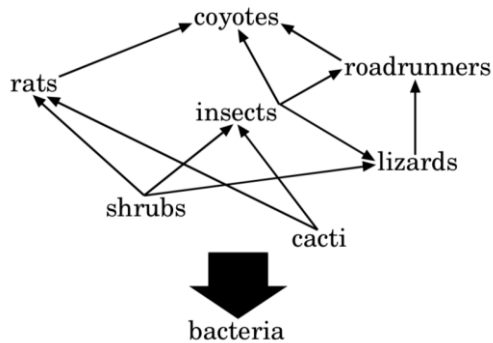


Environmental and Natural Resources Career Development Event
General Knowledge Test
2018

Use this diagram of a food web to answer the next five questions



- 1) In which biome is this food web most likely to be found?
 - a. Forest
 - b. Desert
 - c. Grassland
 - d. Urban
- 2) What is the function of bacteria in this food web?
 - a. Decomposers
 - b. Producers
 - c. Primary consumers
 - d. Secondary consumers
- 3) If these organisms were arranged in a food pyramid, which organism would have the least amount of total energy available?
 - a. Coyote
 - b. Insect
 - c. Lizard
 - d. Shrub
- 4) Which population would increase most if the insects were eliminated?
 - a. Decomposers
 - b. Producers
 - c. Primary consumers
 - d. Secondary consumers
- 5) Which of the following populations begins the flow of energy through the food web?
 - a. Coyotes
 - b. Insects
 - c. Lizards
 - d. Shrub

- 6) Two environmentally sound methods of solid waste disposal are
- Incineration and sanitary landfills
 - Ocean dumping and sanitary landfills
 - Town dumps and sanitary landfills
 - Compaction and town dumps
 - Town dumps and recycling centers
- 7) Which of the following is a consequence of compaction?
- Increased soil salinity
 - Increased weathering of rocks
 - Decreased absorption of water
 - Decreased soil fertility
- 8) Air is
- 78 percent argon
 - 21 percent nitrogen
 - 21 percent oxygen
 - 10 percent carbon dioxide
- 9) The largest soil particle is
- Clay
 - Gravel
 - Sand
 - Silt
- 10) Brackish water is
- Colored black
 - Located in tidal areas
 - Collected from small creeks and branches
 - Mostly high in salinity (20-34 ppt)
- 11) This type of erosion can be responsible for up to 95 percent of soil loss.
- Splash Erosion
 - Sheet Erosion
 - Gully Erosion
 - Wind Erosion
- 12) What role do forests have in the environment?
- Filter groundwater
 - Prevent soil erosion
 - Convert carbon dioxide into oxygen
 - Provide wildlife habitat
 - All of the above

- 13) The horizon that is most supportive of plant growth is
- Horizon O
 - Horizon A
 - Horizon B
 - Horizon C
- 14) _____ is a species of fish adapted to cold, running water in streams.
- Carp
 - Catfish
 - Trout
 - Sunfish
- 15) Ecosystems that are characterized by partially enclosed coastal bodies of water where salty seawater mixes with freshwater from streams and rivers are called?
- Euphotic zones
 - Coral reefs
 - Estuaries
 - Benthic zones
- 16) _____ is the sequential replacement of species in an ecosystem which underwent an artificial or natural disturbance.
- Primary succession
 - Secondary succession
 - Tertiary succession
 - None of the above
- 17) Which of the following is NOT one of the four basic elements of a habitat?
- Macronutrients
 - Space
 - Shelter
 - Food
 - Water
- 18) What is ecology?
- A complex network of living and nonliving organisms
 - The branch of science dealing with the complex relationships of nonliving organisms
 - The branch of science dealing with the complex relationships of living things and the environment
 - The branch of science dealing only with natural resources
 - The branch of science dealing with nature's effect of living things

19) Define riparian area.

- a. The grassy areas located along the borders of a field
- b. Land and vegetation adjacent or near the banks of a waterway
- c. Areas that are covered with water at least part of the year
- d. The ridge or high area from which water drains either toward or away from a watershed

20) A snag tree is most commonly defined as a

- a. Live standing tree that shelters wildlife and is a valuable timber source
- b. Dead tree which is also a shelter for wildlife but is of little to no timber value
- c. Live tree that is hollow or contains holes large enough to shelter wildlife
- d. None of the above

21) Fish that migrate between freshwater and saltwater are called?

- a. Diadromous
- b. Desalination
- c. Flocculation
- d. Hygrophyte

22) Transpiration is

- a. The process when a plant absorbs water into its roots and then gives off water vapor through the pores in its leaves
- b. The process of water filtering down through aerated soil due to gravity
- c. The process of turning from liquid to vapor
- d. The process of precipitating a substance from a solution

23) Which of the following is considered a non-exhaustible resource?

- a. Solar energy
- b. Geothermal sources
- c. Tidal energy
- d. Wind power
- e. All of the above

24) What percentage of the average soil are minerals?

- a. 25 percent
- b. 45 percent
- c. 5 percent
- d. 10 percent

25) Which of the following is considered the largest contributor to the problem of acid precipitation?

- a. Sulfur
- b. Sulfur Dioxide
- c. Sulfur Monoxide
- d. None of the above

- 26) What is the first step in the chemical breakdown by bacteria during the nitrification process?
- Ammonia to nitrates
 - Ammonia to nitrites
 - Nitrates to nitrites
 - Nitrites to nitrates
- 27) Which of the following is a primary producer?
- cows
 - trees
 - blue crab
 - striped bass
- 28) Contaminants of food and water include
- Registered pesticides
 - Contact by cockroaches
 - Feces and urine
 - All of the above
- 29) The product of decaying plant or animal matter is
- Chlorofluorocarbons
 - Methane
 - Nitrous oxide
 - Ozone
- 30) Decay of organic matter is caused by
- Large animals
 - Microbes
 - Rodents
 - Water
- 31) The land class with the fewest limitations is
- Class I
 - Class III
 - Class VI
 - Class VIII
- 32) There are about _____ acres of productive forests in the continental United States
- 105 million
 - 235 million
 - 500 million
 - 751 million

- 33) The most important commercial species of trees in the United States is
- Oak
 - Douglas fir
 - Redwood
 - Walnut
- 34) A forest that has never been harvested is called
- Virgin
 - Hardwood
 - Clear cut
 - Seedling
- 35) The seed-tree method of harvesting
- Cuts all trees over a certain diameter
 - Cuts all trees under a certain diameter
 - Cuts about one-third of the trees in a woodlot
 - Cuts all but a few trees left for seed
- 36) Forest wildlife generally survive best in forest that are
- Of mixed-age trees
 - Deciduous
 - Evergreen
 - Of even age trees
- 37) Trees growing along streams help to
- Regulate water flow
 - Provide food for aquatic wildlife
 - Regulate stream temperatures
 - All of the above
- 38) When two species of wildlife live together for the benefit of both, the relationship is called
- Mutualism
 - Predation
 - Commensalism
 - Competition
- 39) Wetlands should be made up of about _____ shallow, standing water for optimum wildlife use.
- One fourth
 - One third
 - One-half
 - Two-thirds

- 40) The highest salinity level is measured in
- Pond water
 - Irrigation water
 - Creeks
 - Ocean water
- 41) A fish death can occur when a pond “rolls over”
- Because of the temperature shock
 - Because the sages sink to the bottom
 - Because of low levels of dissolved oxygen
 - Because the fish turn upside down
- 42) The rate at which photosynthesis is carried out depends on
- The amount of fertilizer in the water
 - The amount of oxygen in the atmosphere
 - The amount of respiration carried on during the daylight hours
 - The intensity, temperature and concentration of carbon dioxide
- 43) Conservation is best defined as...
- An attempt to prevent the use or modification of some natural resource.
 - A natural resource that for all practical purposes will never run out.
 - The “wise use” of our natural resources to provide as much usefulness as possible to people both now and in the future.
 - A social or political activity intended to benefit a Natural Resource.
- 44) Slope, texture, flood hazard, and drainage are used to describe physical properties of ...
- Soils
 - Forestry
 - Watersheds
 - None of the Above
- 45) Which of these would be considered a keystone species?
- Grey wolf
 - White-footed mice
 - White-tailed deer
 - Red fox
- 46) _____ is the process by which an organism maintains a fairly constant internal environment when the external environment changes.
- Homeostasis
 - Periodicity
 - Poikilotherm
 - Homeotherm

- 47) This made it a federal offense to transport illegally acquired wildlife across state boundaries
- Lacey Act, 1900
 - Migratory Bird Act, 1929
 - Lea Act, 1948
 - Pitman-Robertson Act, 1950
- 48) The ability of a given area to provide food, water, and shelter for the population of a given animal is defined as:
- Maximum daily load
 - Carrying capacity
 - Resource consumption
 - Minimum viable population
- 49) _____ is a special type of wetland that may only last for a few months each year.
- Vernal pool
 - Excavated pond
 - Embankment pond
 - None of the above
- 50) Chlorophyll is important in plants because it
- Creates an atmosphere where it can determine the osmotic pressure
 - Allows the plant to make good xylem tissue
 - Allows photosynthesis to occur
 - Is also known as the chloroplasts